

AMENDMENTS TO THE CLAIMS

The claims are presented below with their amendment status and revision marks to indicate any amendments.

1. (CURRENTLY AMENDED) A method comprising the steps of:

a. coupling a plurality of devices in a daisy chain, wherein each device performs the steps of:

i) receiving a received command sequence including a received channel identifier;

ii) executing the received command sequence if the received channel identifier matches a pre-determined value, wherein the pre-determined value is the same for each of the plurality of daisy-chained devices; and

iii) modifying the received channel identifier within the received command sequence to generate a modified command sequence having a modified channel identifier for transmission to a next device of the daisy chain, wherein the modified command sequence is the received command sequence for that next device of the daisy chain.

— a) providing a command sequence containing a channel identifier to a receiving device of a plurality of daisy chained devices;

— b) modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain; and

— c) executing a command of the received command sequence on any device receiving the command, if the received channel identifier within that

~~received command sequence matches a pre-determined value, wherein each of the plurality of devices uses the same pre-determined value for comparison.~~

2. (ORIGINAL) The method of claim 1 wherein the command sequence includes a command word, an address word, and at least one data word.

3. (CANCELED)

4. (PREVIOUSLY PRESENTED) The method of claim 1 wherein the pre-determined value is a selected member of the set {x0h, xFh}.

5. (CURRENTLY AMENDED) The method of claim 1 wherein step b) a)(iii) further comprises the step of incrementing the received channel identifier to form the modified channel identifier.

6. (CURRENTLY AMENDED) The method of claim 1 wherein step b) a)(iii) further comprises the step of decrementing the received channel identifier to form the modified channel identifier.

7. (CURRENTLY AMENDED) The method of claim 1 wherein the received channel identifier is provided in least significant bit order within the command sequence.

8. (CURRENTLY AMENDED) The method of claim 1 further comprising the steps of:

d) b) transmitting the same command sequence to all of the serial devices substantially simultaneously when in a broadcast mode; and

e) c) cascading the command sequence through the serial devices when in a daisy chain mode.

9. (CURRENTLY AMENDED) An apparatus comprising a plurality of serial devices, wherein each serial device comprises:

a serial input port for receiving a first command sequence having a first channel identifier and a remaining command sequence;

a daisy chain output port;

command sequence processing logic for modifying the first channel identifier to form a second channel identifier, wherein the command sequence processing logic provides the second channel identifier and the remaining command sequence to the daisy chain output port; and

command execution logic for executing the remaining command sequence if the first channel identifier matches a pre-determined value, wherein each of the plurality of serial devices uses the same pre-determined value.

10. (ORIGINAL) The apparatus of claim 9 wherein the first channel identifier is incremented to form the second channel identifier.

11. (ORIGINAL) The apparatus of claim 9 wherein the first channel identifier is decremented to form the second channel identifier.

12. (ORIGINAL) The apparatus of claim 9 wherein the first channel identifier is stored in least significant bit order within the command sequence.

13. (CANCELED)

14. (CURRENTLY AMENDED) The apparatus of claim 12 wherein the pre-determined value is a selected member of the set {x0h, xFh}.

15. (CURRENTLY AMENDED) An apparatus comprising:

a bus master providing an initial command sequence having an initial channel identifier;

a plurality of serial devices, each device comprising:

a serial input port for receiving a first command sequence having a first channel identifier and a remaining command sequence;

a daisy chain output port; and

command sequence processing logic for modifying the first channel identifier to form a second channel identifier, wherein the command sequence processing logic provides the second channel identifier and the remaining command sequence to the daisy chain output port; and

command execution logic, wherein the command execution logic executes the remaining command sequence if the first channel identifier matches a pre-determined value shared by the plurality of serial devices;

a bus selectively coupling the serial devices in one of a non-daisy-chain normal configuration and a daisy chain configuration, wherein the initial channel identifier is the first channel identifier for the device receiving the initial

command sequence, wherein when coupled in the daisy chain configuration the second channel identifier provided by any selected serial device is received as the first channel identifier by the next serial device of the daisy chain, wherein when coupled in a non-daisy-chain configuration each of the devices receives a same first command sequence.

16. (CURRENTLY AMENDED) The apparatus of claim 15 wherein the bus master provides the initial command sequence with the initial channel identifier selected from the set of {x0h, xFh} when the devices are coupled in the normal configuration, wherein each of the plurality of devices receives the initial command sequence substantially simultaneously.

17. (PREVIOUSLY PRESENTED) The apparatus of claim 15 wherein when coupled in the daisy chain configuration, the bus master provides the initial command sequence to a first serial device of the plurality of devices, wherein each subsequent device receives a modified command sequence including its associated second channel identifier and the remaining command sequence provided by a preceding serial device, wherein the plurality of second channel identifiers is distinct.

18. (CANCELED) ~~The apparatus of claim 15 wherein each serial device further comprises command execution logic, wherein the command execution logic executes the command sequence received by that device if the associated channel identifier matches a pre-determined value shared by the plurality of serial devices.~~

19. (CURRENTLY AMENDED) The apparatus of claim 18 15 wherein the pre-determined value is a selected member of the set {x0h, xFh}.

20. (ORIGINAL) The apparatus of claim 15 wherein the bus master provides the initial channel identifier in least significant bit order within the initial command sequence, wherein the initial command sequence is provided in most significant bit order.